Complete Summary

GUIDELINE TITLE

Bronchiolitis in children. A national clinical guideline.

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Bronchiolitis in children. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2006 Nov. 41 p. (SIGN publication; no. 91). [110 references]

GUIDELINE STATUS

This is the current release of the guideline.

Any amendments to the guideline in the interim period will be noted on Scottish Intercollegiate Guidelines Network (SIGN) Web site.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Bronchiolitis

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Prevention
Treatment

CLINICAL SPECIALTY

Emergency Medicine
Family Practice
Infectious Diseases
Internal Medicine
Pediatrics
Pulmonary Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Patients
Pharmacists
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

- To provide evidence based recommendations on the prevention, diagnosis, investigation, treatment and management of bronchiolitis in infants less than 12 months of age
- To reduce the use of unnecessary therapies and investigations in infants with acute disease
- To guide referral patterns from primary to secondary and tertiary care

TARGET POPULATION

Infants less than 12 months of age

As infants with significant comorbidities have increased susceptibility to bronchiolitis beyond twelve months of age, the following specific groups were considered up to 24 months of age:

- Those born prematurely ($\leq$37 weeks gestational age)
- Infants with congenital heart disease (CHD) or underlying respiratory disease.

Note: The guideline focuses on the clinically diagnosed condition of bronchiolitis in infants less than 12 months of age. This minimises any bias from reporting discrepancies associated with the diagnosis of bronchiolitis above this age.

Bronchiolitis in immunodeficient infants or those with rare ("orphan") disease was not considered.

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Assessment

1. Clinical history/presentation (i.e., fever, respiratory rate, age)
2. Physical examination, considering seasonality
3. Pulse oximetry
4. Virological testing for Respiratory Syncytial Virus (RSV)

Note: The following diagnostic interventions were considered but not recommended for routine use:

- Blood gases
- Chest x-ray
- Routine bacteriological testing (blood and urine)
- Haematology (full blood count)
- Biochemistry (urea, electrolytes and C-reactive protein)

5. Assessment of risk factors for disease severity
    - Age
    - Comorbidities
    - Social factors
6. Indicators for referral

Treatment/Management

1. Nasogastric feedings (hydration)
2. Supplemental oxygen
3. Nasal suction
4. Hospital discharge criteria
5. Prevention/transmission reduction
    - Staff and family member education (symptoms duration, transmission)
    - Hand decontamination (handwashing, alcohol based gels)
    - Ongoing infection control surveillance
    - Reduce exposure to second hand smoke
    - Breastfeeding
6. Provision of information for parents and carers

Guideline developers considered but did not recommend the following: Nebulized ribavirin, antibiotics, beta 2 bronchodilators, nebulized epinephrine, anti-inflammatories, chest physiotherapy, Palivizumab (not recommended for routine use) RSV hyperimmune globulin (RSVIG) (RSVIG therapy is not licensed for use in the United Kingdom (UK).

MAJOR OUTCOMES CONSIDERED

- Effectiveness of diagnostic interventions/tools
- Effectiveness of therapeutic interventions
- Cost effectiveness of prophylactic therapy
- Symptom improvement and short term clinical benefits
- Development of subsequent chronic respiratory symptoms
- Hospitalization rate and length of hospital stay
- Admission to paediatric intensive care unit (PICU)
- Health care related infection rates

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The evidence base for this guideline was synthesised in accordance with Scottish Intercollegiate Guidelines Network (SIGN) methodology. A systematic literature review was carried out using an explicit search strategy devised by the SIGN Information Officer in collaboration with members of the guideline development group. Literature searches were initially conducted in Medline, Embase, Cinahl and the Cochrane Library, using the year range 2000-2005. The main searches were supplemented by material identified by individual members of the development group. All selected papers were evaluated using standard methodological checklists. The Medline version of the main search strategies can be found on the SIGN website.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

1++: High quality meta-analyses, systematic reviews of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+: Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias

1-: Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias

2++: High quality systematic reviews of case control or cohort studies
High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal

2+: Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal

2-: Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal

3: Non-analytic studies (e.g. case reports, case series)

4: Expert opinion

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Once papers have been selected as potential sources of evidence, the methodology used in each study is assessed to ensure its validity. The result of this assessment will affect the level of evidence allocated to the paper, which will in turn influence the grade of recommendation that it supports.

The methodological assessment is based on a number of key questions that focus on those aspects of the study design that research has shown to have a significant influence on the validity of the results reported and conclusions drawn. These key questions differ between study types, and a range of checklists is used to bring a degree of consistency to the assessment process. Scottish Intercollegiate Guidelines Network (SIGN) has based its assessments on the MERGE (Method for Evaluating Research and Guideline Evidence) checklists developed by the New South Wales Department of Health, which have been subjected to wide consultation and evaluation. These checklists were subjected to detailed evaluation and adaptation to meet SIGN's requirements for a balance between methodological rigour and practicality of use.

The assessment process inevitably involves a degree of subjective judgment. The extent to which a study meets a particular criterion (e.g., an acceptable level of loss to follow up) and, more importantly, the likely impact of this on the reported results from the study will depend on the clinical context. To minimise any potential bias resulting from this, each study must be evaluated independently by at least two group members. Any differences in assessment should then be discussed by the full group. Where differences cannot be resolved, an independent reviewer or an experienced member of SIGN Executive staff will arbitrate to reach an agreed quality assessment.

Evidence Tables

Evidence tables are compiled by SIGN executive staff based on the quality assessments of individual studies provided by guideline development group members. The tables summarise all the validated studies identified from the systematic literature review relating to each key question. They are presented in a standard format to make it easier to compare results across studies, and will present separately the evidence for each outcome measure used in the published studies. These evidence tables form an essential part of the guideline development record and ensure that the basis of the guideline development group's recommendations is transparent.

Additional details can be found in the companion document titled "SIGN 50: A Guideline Developers' Handbook." (Edinburgh [UK]: Scottish Intercollegiate

Guidelines Network. [SIGN publication; no. 50]), available from the SIGN Web site.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Synthesising the Evidence

Guideline recommendations are graded to differentiate between those based on strong evidence and those based on weak evidence. This judgment is made on the basis of an (objective) assessment of the design and quality of each study and a (perhaps more subjective) judgment on the consistency, clinical relevance and external validity of the whole body of evidence. The aim is to produce a recommendation that is evidence-based, but which is relevant to the way in which health care is delivered in Scotland and is therefore implementable.

It is important to emphasise that the grading does not relate to the importance of the recommendation, but to the strength of the supporting evidence and, in particular, to the predictive power of the study designs from which that data was obtained. Thus, the grading assigned to a recommendation indicates to users the likelihood that, if that recommendation is implemented, the predicted outcome will be achieved.

Considered Judgment

It is rare for the evidence to show clearly and unambiguously what course of action should be recommended for any given question. Consequently, it is not always clear to those who were not involved in the decision making process how guideline developers were able to arrive at their recommendations, given the evidence they had to base them on. In order to address this problem, SIGN has introduced the concept of considered judgment.

Under the heading of considered judgment, guideline development groups summarise their view of the total body of evidence covered by each evidence table. This summary view is expected to cover the following aspects:

- Quantity, quality, and consistency of evidence
- Generalisability of study findings
- Directness of application to the target population for the guideline
- Clinical impact (i.e., the extent of the impact on the target patient population, and the resources needed to treat them)
- Implementability (i.e., how practical it would be for the NHS in Scotland to implement the recommendation)

Guideline development groups are provided with a pro forma in which to record the main points from their considered judgment. Once they have considered these

issues, the group is asked to summarise their view of the evidence and assign a level of evidence to it, before going on to derive a graded recommendation.

Additional detail about SIGN's process for formulating guideline recommendations is provided in Section 6 of the companion document titled "SIGN 50: A Guideline Developers' Handbook." (Edinburgh [UK]: Scottish Intercollegiate Guidelines Network. [SIGN publication; no. 50], available from the SIGN Web site.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation

Note: The grade of recommendation relates to the strength of the evidence on which the recommendation is based. It does not reflect the clinical importance of the recommendation.

A: At least one meta-analysis, systematic review of randomized controlled trials (RCTs), or RCT rated as 1++ and directly applicable to the target population; *or*

A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results

B: A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 1++ or 1+

C: A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 2++

D: Evidence level 3 or 4; *or*

Extrapolated evidence from studies rated as 2+

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group

COST ANALYSIS

Cost Effectiveness of Rapid Virological Testing for RSV

Rapid virological testing can be of benefit in relation to guiding isolation and allocating patients into cohorts in hospital. Rapid testing for RSV, which can be performed at the point of care in order to facilitate this, has been shown to have acceptable performance in comparison to laboratory based tests despite reduced diagnostic sensitivity.

A case control study found that rapid diagnosis of respiratory viral infections in infants was cost effective by reducing length of hospital stay, antibiotic use and number of microbiological tests performed compared to a matched group of patients from the previous year who were diagnosed by virus culture.

There may be a reduction in unnecessary interventions associated with knowledge of RSV status. In a postal survey, physicians reported that a definitive viral diagnosis was important to patients.

Cost Effectiveness of Palivizumab Prophylaxis

A well conducted systematic review identified seven United Kingdom RSV related cost studies. The studies consistently concluded that the costs of palivizumab prophylaxis were far in excess of any likely savings achieved by decreasing hospital admission rates. One of the studies performed a sensitivity analysis and found that the probability of hospital admission would have to be >31% for palivizumab to be cost effective. The non-societal perspective of most studies was acknowledged.

Another systematic review encompassing UK and non-UK studies reported diverse results ranging from cost savings to considerable incremental costs per hospitalisation avoided. The diversity was attributed to the range of different infant groups, study methods and assumptions and also to the poor quality of some of the studies In general palivizumab was not cost effective if administered to all infants for whom it was approved.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The national open meeting is the main consultative phase of Scottish Intercollegiate Guidelines Network (SIGN) guideline development. The national open meeting for this guideline was held on 9th December 2005 and was attended by 150 representatives of all the key specialties relevant to the guideline.

The draft guideline was also available on the SIGN website for a limited period at this stage to allow those unable to attend the meeting to contribute to the development of the guideline.

Peer Review

All SIGN guidelines are reviewed in draft form by independent expert referees, who are asked to comment primarily on the comprehensiveness and accuracy of interpretation of the evidence base supporting the recommendations in the guideline. A number of general practitioners (GPs) and other primary care practitioners also provide comments on the guideline from the primary care perspective, concentrating particularly on the clarity of the recommendations and their assessment of the usefulness of the guideline as a working tool for the

primary care team. The draft is also sent to a lay reviewer in order to obtain comments from the patient's perspective. The comments received from peer reviewers and others are carefully tabulated and discussed with the chairman and with the guideline development group. Each point must be addressed and any changes to the guideline as a result noted or, if no change is made, the reasons for this recorded.

As a final quality control check prior to publication, the guideline and the summary of peer reviewers' comments are reviewed by the SIGN Editorial Group for that guideline to ensure that each point has been addressed adequately and that any risk of bias in the guideline development process as a whole has been minimised. Each member of the guideline development group is then asked formally to approve the final guideline for publication.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the Scottish Intercollegiate Guidelines Network (SIGN) and National Guideline Clearinghouse (NGC)*: In addition to these evidence-based recommendations, the guideline development group also identifies points of best clinical practice in the full-text guideline document.*

The grades of recommendations (A–D) and levels of evidence (1++, 1+, 1-, 2++, 2+, 2-, 3, 4) are defined at the end of the "Major Recommendations" field.

Diagnosis

Diagnostic Value of Clinical Characteristics

Fever

D - The absence of fever should not preclude the diagnosis of acute bronchiolitis.

D - In the presence of high fever *(axillary temperature ≥39°C)* careful evaluation for other causes should be undertaken before making a diagnosis.

Respiratory Rate

D - Increased respiratory rate should arouse suspicion of lower respiratory tract infection, particularly bronchiolitis or pneumonia.

Summary of Diagnostic Characteristics

D - A diagnosis of acute bronchiolitis should be considered in an infant with nasal discharge and a wheezy cough, in the presence of fine inspiratory crackles and/or high pitched expiratory wheeze. Apnoea may be a presenting feature.

Seasonality

D - Healthcare professionals should take seasonality into account when considering the possible diagnosis of acute bronchiolitis.

Risk Factors for Severe Disease

Significant Comorbidities

Summary of Effect of Comorbidity

C - Healthcare professionals should be aware of the increased need for hospital admission in infants born at less than 35 weeks gestation and in infants who have congenital heart disease or chronic lung disease of prematurity.

Social Factors

Breastfeeding

C - Breast feeding reduces the risk of respiratory syncytial virus (RSV)-related hospitalisation and should be encouraged and supported.

Parental Smoking

C - Healthcare professionals should inform families that parental smoking is associated with increased risk of RSV-related hospitalisation.

Investigations

Oxygen Saturation

C - Pulse oximetry should be performed in every child who attends hospital with acute bronchiolitis.

Chest X-ray

C - Chest X-ray should not be performed in infants with typical acute bronchiolitis.

Virological Testing

D - Unless adequate isolation facilities are available, rapid testing for RSV is recommended in infants who require admission to hospital with acute bronchiolitis, in order to guide cohort arrangements.

Bacteriological Testing

C - Routine bacteriological testing *(of blood and urine)* is not indicated in infants with typical acute bronchiolitis. Bacteriological testing of urine should be considered in febrile infants less than 60 days old.

Haematology

D - Full blood count is not indicated in assessment and management of infants with typical acute bronchiolitis.

Biochemistry

D - Measurement of urea and electrolytes is not indicated in the routine assessment and management of infants with typical acute bronchiolitis but should be considered in those with severe disease.

Treatment

Antiviral

B - Nebulised ribavirin is not recommended for treatment of acute bronchiolitis in infants.

Inhaled Bronchodilators

B - Inhaled beta 2 agonist bronchodilators are not recommended for the treatment of acute bronchiolitis in infants.

Nebulised Epinephrine

A - Nebulised epinephrine is not recommended for the treatment of acute bronchiolitis in infants.

Anti-inflammatories

Inhaled Corticosteroids

A - Inhaled corticosteroids are not recommended for the treatment of acute bronchiolitis in infants.

Systemic Corticosteroids

A - Oral systemic corticosteroids are not recommended for the treatment of acute bronchiolitis in infants.

Hospital Based Supplementary Therapies

Physiotherapy

A - Chest physiotherapy using vibration and percussion is not recommended in infants hospitalised with acute bronchiolitis who are not admitted to intensive care.

Nasal Suction

D - Nasal suction should be used to clear secretions in infants hospitalised with acute bronchiolitis who exhibit respiratory distress due to nasal blockage.

Maintaining Fluid Balance/Hydration

D - Nasogastric feeding should be considered in infants with acute bronchiolitis who cannot maintain oral intake or hydration.

Oxygen

D - Infants with oxygen saturation levels ≤92% or who have severe respiratory distress or cyanosis should receive supplemental oxygen by nasal cannulae or facemask.

Symptom Duration and Hospital Discharge

Duration of Symptoms Following Acute Bronchiolitis

B - Parents and carers should be informed that, from the onset of acute bronchiolitis, around half of infants without comorbidity are asymptomatic by two weeks but that a small proportion will still have symptoms after four weeks.

Limiting Disease Transmission

Education

D - Healthcare professionals should be educated about the epidemiology and control of RSV where appropriate.

Ward-Based Strategies

D - Staff should decontaminate their hands *(with soap and water or alcohol gel)* before and after caring for patients with viral respiratory symptoms.

D - Gloves and plastic aprons *(or gowns)* should be used for any direct contact with the patient or their immediate environment.

D - Infected patients should be placed in single rooms. If adequate isolation facilities are unavailable, the allocation of patients into cohorts should be based on laboratory confirmation of infection in all inpatients less than two years of age with respiratory symptoms.

D - Both service providers and staff should be aware of the risk that those with upper respiratory tract infections pose for high-risk infants.

D - Local policies should restrict hospital visiting by those with symptoms of respiratory infections.

D - There should be ongoing surveillance by control of infection staff to monitor compliance with infection control procedures.

Information for Parents and Carers

Information Provision

D - Parents and carers should receive information about their child's condition, its treatment and prognosis.

Definitions:

Grades of Recommendation

Note: The grade of recommendation relates to the strength of the evidence on which the recommendation is based. It does not reflect the clinical importance of the recommendation.

A: At least one meta-analysis, systematic review of randomized controlled trials (RCTs), or RCT rated as 1++ and directly applicable to the target population; *or*

A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results

B: A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 1++ or 1+

C: A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; *or*

Extrapolated evidence from studies rated as 2++

D: Evidence level 3 or 4; *or*

Extrapolated evidence from studies rated as 2+

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group

Levels of Evidence

1++: High quality meta-analyses, systematic reviews of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+: Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias

1-: Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias

2++: High quality systematic reviews of case control or cohort studies
High quality case control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal

2+: Well-conducted case control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal

2-: Case control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal

3: Non-analytic studies (e.g. case reports, case series)

4: Expert opinion

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Improved prevention, diagnosis, investigation, treatment and management of bronchiolitis in infants 12 months or younger

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is, however, advised that significant departures from the national guideline or any local guidelines derived from it

should be fully documented in the patient's case notes at the time the relevant decision is taken.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation of national clinical guidelines is the responsibility of each National Health Service (NHS) Board and is an essential part of clinical governance. It is acknowledged that every Board cannot implement every guideline immediately on publication, but mechanisms should be in place to ensure that the care provided is reviewed against the guideline recommendations and the reasons for any differences assessed and, where appropriate, addressed. These discussions should involve both clinical staff and management. Local arrangements may then be made to implement the national guideline in individual hospitals, units and practices, and to monitor compliance. This may be done by a variety of means including patient-specific reminders, continuing education and training, and clinical audit.

Key points for audit are identified in the original guideline document.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Patient Resources
Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Bronchiolitis in children. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate

Guidelines Network (SIGN); 2006 Nov. 41 p. (SIGN publication; no. 91). [110 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Nov

GUIDELINE DEVELOPER(S)

Scottish Intercollegiate Guidelines Network - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

Scottish Executive Health Department

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Declarations of interests were made by all members of the guideline development group. Further details are available from the Scottish Intercollegiate Guidelines Network (SIGN) Executive.

GUIDELINE STATUS

This is the current release of the guideline.

Any amendments to the guideline in the interim period will be noted on Scottish Intercollegiate Guidelines Network (SIGN) Web site.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Scottish Intercollegiate Guidelines Network (SIGN) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Quick reference guide: Bronchiolitis in children. Scottish Intercollegiate Guidelines Network, 2006. 2 p. Available in Portable Document Format (PDF) from the Scottish Intercollegiate Guidelines Network (SIGN) Web site.
- SIGN 50: A guideline developer's handbook. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network. (SIGN publication; no. 50). Available from the SIGN Web site.
- Appraising the quality of clinical guidelines. The SIGN guide to the AGREE (Appraisal of Guidelines Research & Evaluation) guideline appraisal instrument. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network, 2001. Available from the SIGN Web site.

PATIENT RESOURCES

The following is available:

- Information about bronchiolitis for patients and carers. Scottish Intercollegiate Guidelines Network, 2006. 2 p.

Available in Portable Document Format (PDF) from the Scottish Intercollegiate Guidelines Network (SIGN) Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information

has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

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